



UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Kiyokazu MORIIZUMI**

Art Unit: **2841**

Application Number: **09/783,598**

Examiner: **Tuan T. Dinh**

Filed: **February 15, 2001**

Confirmation Number: **4350**

For: **FRONT-AND-BACK ELECTRICALLY CONDUCTIVE SUBSTRATE AND
METHOD FOR MANUFACTURING SAME**

Attorney Docket Number: **010153**

Customer Number: **38834**

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop: AF

Date: November 5, 2008

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Sir:

This Request is filed concurrent with a Notice of Appeal in compliance with 37 C.F.R. §41.31. Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

REMARKS

Claims 1 and 3-16 are currently pending, in which claims 7-16 are withdrawn from consideration.

The examiner failed to show proper reason for making a modification in an obviousness rejection. The examiner alleged as follows:

As in Beilin, the conductive post (18) formed by anisotropically etched (see noted as in claim 1) may be formed of other materials besides conductive material (see column 4, lines 15-16). The other material of the post's Beilin could be a silicon (Si). However, for the applicant benefit, Albrecht shows a silicon post made by etching silicon using anisotropically etched. **Beilin and Albrecht are the same field.** Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the silicon post of Albrecht employed the post of Beilin in order to achieve a fine pitch interconnection applied in a high density interconnection of a wiring board or a multilayer substrate by using silicon as a dielectric allowing much more precision than some of the other materials.

Office Action, page 6, lines 12-21, emphasis added).

However, Beilin and Albrecht are NOT in the same field. Beilin discloses methods of planarizing structures on wafers and substrates which employ a polish-stop layer in a polishing process, such as standard mechanical polishing and chemical-mechanical polishing (CMP). On the other hand, Albrecht discloses a micro-fabricated cantilever stylus with integrated conical tip. Albrecht's micro-fabricated cantilever stylus has nothing to do with Beilin's planarizing structures on wafers and substrates.

Moreover, Beilin teaches that apertures are formed in layer 16 or 116 of silicon, the apertures are filled in with a material to form posts 18 or 118, and a portion of the layer 16 or 116 (silicon) is removed. Therefore, it is unnecessary for Beilin to etch silicon or the material that

forms the posts. Because the layer 16 or 116 is removed, no silicon post will remain in Beilin even if the layer 16 or 116 is replaced by silicon. Furthermore, even if the layer 16 or 116 is made of silicon, the posts 18 or 118 will not be made of silicon because a portion of silicon (the layer 16 or 116) is removed to form the posts 18 or 118.

Ho teaches that interconnection 31 is formed by filling a material in an aperture as shown in figures 1a-1c. Ho does not teach or suggest formation of the interconnection by etching the material. Therefore, there is no reason in the prior art to combine Beilin, Albrecht and Ho.

For at least the above reasons, claim 1 patentably distinguishes over Beilin, Albrecht and Ho.

Applicant's position is explained in more detail at pages 7-9 of the Amendment filed on May 13, 2008.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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